



THE REPORT OF THE
ANNUAL ACTUARIAL VALUATION

OF THE

CITY OF LINCOLN POLICE AND FIRE PENSION FUND
AUGUST 31, 2005

SUBMITTED TO
THE CITY COUNCIL

CITY OF LINCOLN POLICE AND FIRE PENSION FUND
LINCOLN, NEBRASKA

GABRIEL ROEDER SMITH & COMPANY



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January 13, 2006

The City Council
City of Lincoln Police and Fire Pension Fund
Lincoln, Nebraska

Ladies and Gentlemen:

Submitted in this report are the results of the annual actuarial valuation of the benefits provided by the City of Lincoln Police and Fire Pension Fund.

The date of the valuation was August 31, 2005.

Valuation results are contained in Section A.

Governmental Accounting Standard information is contained in Section B.

Gain Loss, historical data and comments are contained in Section C.

The valuation was based upon information, furnished by the City, concerning Pension Fund benefits, financial transactions, individual active members, terminated members, DROP members, retirants and beneficiaries. Data was checked for year to year consistency but was not otherwise audited by us. This information is summarized in Section D.

Descriptions of the actuarial cost methods and actuarial assumptions are contained in Section E, along with a glossary of technical terms.

To the best of our knowledge this report is complete and accurate and was made in accordance with generally recognized actuarial methods in compliance with the Pension Fund provisions. The actuarial assumptions used for the valuation produce results which we believe are reasonable.

Respectfully submitted,

Louise M. Gates, ASA W. James Koss, ASA, EA

LMG/WJK:dm

Section A



Valuation Results

ACTUARIAL BALANCE SHEET - AUGUST 31, 2005

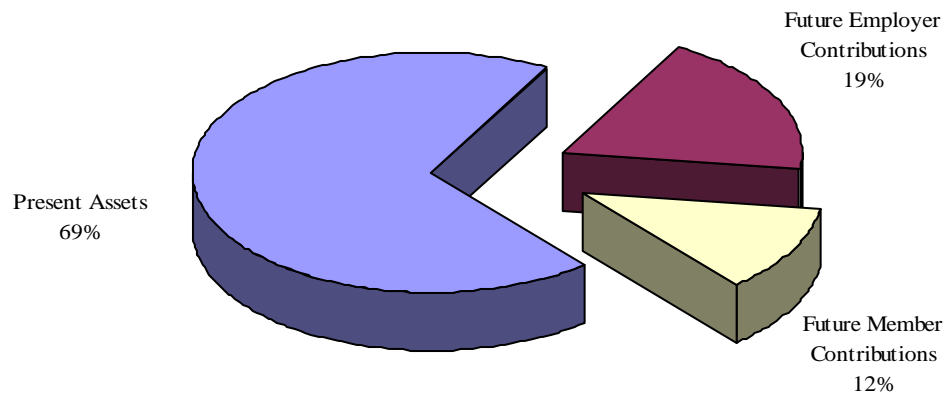
Present Resources and Expected Future Resources

A. Valuation assets		
Net assets from system financial statements (market value)	\$153,324,765	
Valuation adjustment	(7,594,291)	
Valuation assets		\$145,730,474
B. Actuarial present value of expected future employer contributions		
For normal costs	34,357,555	
For UAAL	6,247,934	
Total		40,605,489
C. Actuarial present value of expected future member contributions		24,744,724
D. Total Actuarial Present Value of Present and Expected Future Resources		\$211,080,687

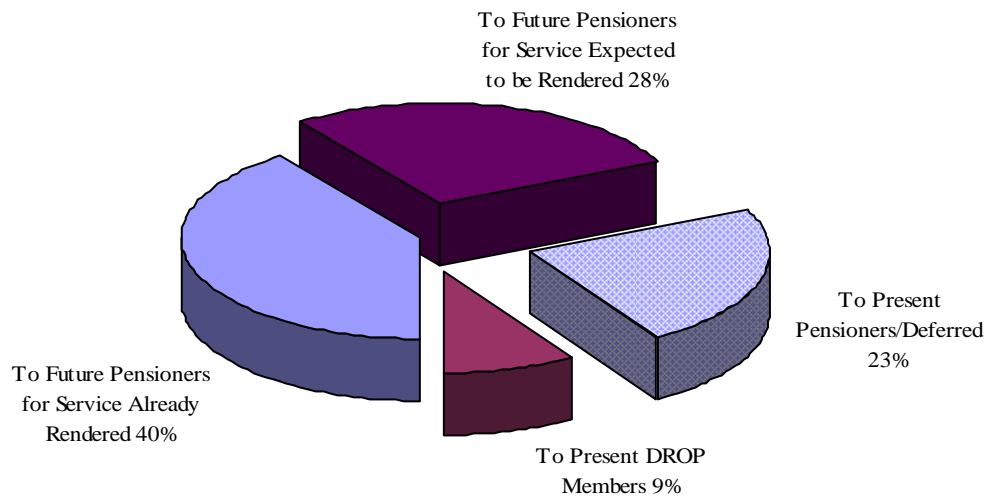
Actuarial Present Value of Expected Future Benefit Payments and Reserves

A. To retirants and beneficiaries		\$ 47,094,716
B. To DROP members		18,852,151
C. To vested terminated members		1,654,209
D. To present active members		
Allocated to service rendered prior to valuation date	\$84,377,332	
Allocated to service likely to be rendered after valuation date	59,102,279	
Total		143,479,611
E. Total Actuarial Present Value of Expected Future Benefit Payments		\$211,080,687

SOURCES AND USES OF FUNDS



Sources of Funds



Uses of Funds

COMPUTED CONTRIBUTIONS FOR THE FISCAL YEAR BEGINNING SEPTEMBER 1

Contributions for Fiscal Year	Contributions Expressed as Percents of Payroll*	
	2006	2005
<i>Normal Cost</i>		
Age & Service Benefits	15.58 %	15.55 %
Disability Benefits	0.48 %	0.47 %
Death Before Retirement	0.53 %	0.52 %
Deferred Age & Service Benefits	1.42 %	1.41 %
Refund of Member Contributions	0.60 %	0.60 %
Total	18.61 %	18.55 %
<i>Member Contributions (weighted average)</i>	7.89 %	7.79 %
<i>Employer Normal Cost</i>	10.72 %	10.76 %
<i>Amortization Payment</i>		
Unfunded Actuarial Accrued Liability	2.36 %	2.81 %
EMPLOYER CONTRIBUTION RATE	13.08 %	13.57 %

* Payroll for active members not included in the DROP

Unfunded actuarial accrued liabilities as of August 31, 2005 were amortized as a level percent of active member payroll over a period of 10 years.

A procedure for determining dollar contribution amounts is described on the following page.

FINANCIAL OBJECTIVE

The financial objective of the Pension Fund is to establish and receive contributions, expressed as percents of active member payroll, which will remain approximately level from year-to-year and will not have to be increased for future generations of citizens. This objective meets the requirements of the laws governing the operation of the Pension Fund.

CONTRIBUTION RATES

The Pension Fund is supported by member contributions, City contributions and investment income from Pension Fund assets.

Contributions which satisfy the financial objective are determined by an annual actuarial valuation and are sufficient to:

- cover the actuarial present value of benefits assigned to the current year by the actuarial cost methods described in Section E (the normal cost); and
- amortize over a period of future years the actuarial present value of benefits not covered by valuation assets or anticipated future normal costs (unfunded actuarial accrued liability).

DETERMINING DOLLAR CONTRIBUTIONS

For any period of time, the percent-of-payroll contribution rate needs to be converted to dollar amounts. We recommend the following procedure:

Contribute dollar amounts at the end of each payroll period which are equal to the City's percent-of-payroll contribution requirement multiplied by the covered active member Non-DROP payroll for the period. Adjustments should be made as necessary to exclude items of pay that are not covered compensation for Pension Fund benefits and to include special payments that are covered compensation.

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DEVELOPMENT OF FUNDING VALUE OF RETIREMENT SYSTEM ASSETS

Year Ended August 31:	2003	2004	2005
Beginning of Year Values			
(1) Cost Value	\$ 117,805,743	\$ 127,547,831	\$ 130,423,543
(2) Market Value	122,239,045	128,083,863	137,781,079
(3) Funding Value	128,319,145	132,577,506	136,973,679
(4) Non Investment Net Cashflow	(3,104,227)	(3,360,602)	(2,780,701)
(5) Expected Income (7.5%)	9,509,632	9,819,569	10,170,635
(6) Actual Income	8,949,045	13,057,818	18,324,387
(7) Gain/(Loss)	(560,587)	3,238,249	8,153,752
(8) Recognized Income			
(a) Expected	9,509,632	9,819,569	10,170,635
(b) Current Year's Base	(140,146)	809,562	2,038,438
(c) 1 year ago	(1,340,993)	(140,146)	809,562
(d) 2 years ago	(1,391,217)	(1,340,993)	(140,146)
(e) 3 years ago	725,312	(1,391,217)	(1,340,993)
(f) Total Income Recognized	7,362,588	7,756,775	11,537,496
End of Year Values			
(9) Cost Value	127,547,831	130,423,543	136,001,209
(10) Market Value	128,083,863	137,781,079	153,324,765
(11) Funding Value (3) + (4) + (8f)	132,577,506	136,973,679	145,730,474
(12) Funding Value / MV	103.51%	99.41%	95.05%
(13) Net Return on Funding Value	5.81%	5.93%	8.51%
(14) Net Return on Market Value	7.42%	10.33%	13.44%

Section B



Disclosures and Supplementary Information
Required by Statements No. 25 and No. 27
of the Governmental Accounting Standards Board

REQUIRED SUPPLEMENTARY INFORMATION ANALYSIS OF FUNDING PROGRESS

Actuarial Valuation Date	(1) Actuarial Value of Assets	(2) Actuarial Accrued Liability (AAL)	(3) Percent Funded (1)/(2)	(4) Unfunded AAL (2) - (1)	(5) Payroll**	(6) Unfunded AAL as a Percentage of Covered Payroll (4)/(5)
8/31/95	\$ 92,235,349	\$ 79,202,449	116.5 %	\$(13,032,900)	\$18,561,302	(70.2)%
8/31/96	94,347,990	81,583,068	115.6 %	(12,764,922)	19,224,719	(66.4)%
8/31/97	101,475,648	91,022,617	111.5 %	(10,453,031)	20,908,549	(50.0)%
8/31/98	109,213,474	94,847,667	115.1 %	(14,365,807)	21,860,493	(65.7)%
8/31/99	113,902,477	104,691,766	108.8 %	(9,210,711)	23,611,284	(39.0)%
8/31/00	121,404,314	115,671,249	105.0 %	(5,733,065)	25,808,088	(22.2)%
8/31/01	128,069,831	122,660,542	104.4 %	(5,409,289)	28,215,685	(19.2)%
8/31/02	128,319,145	130,875,473	98.0 %	2,556,328	26,606,881	9.6 %
8/31/03	132,577,506	137,507,824	96.4 %	4,930,318	27,415,330	18.0 %
8/31/04	136,973,679	144,178,758	95.0 %	7,205,079	28,124,862	25.6 %
8/31/05	145,730,474	151,978,408	95.9 %	6,247,934	29,029,309	21.5 %

REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF EMPLOYER CONTRIBUTIONS

Fiscal Year Beginning Sept. 1	Actuarial Valuation Date	Annual Required Contribution*
1996	8/31/95	\$ 545,702
1997	8/31/96	530,891
1998	8/31/97	961,584
1999	8/31/98	91,814
2000	8/31/99	820,610
2001	8/31/00	1,877,926
2002	8/31/01	2,233,836
2003	8/31/02	3,297,577
2004	8/31/03	3,684,264
2005	8/31/04	4,077,037
2006	8/31/05	4,056,195

* Annual required contribution is equal to the contribution percent times the valuation payroll (item (5)) projected to the appropriate fiscal year. The current projection factor is based on pay increases of 4.5% per year. The employer contribution rate as of 8/31/02 & beyond is based on a 10 year amortization of the UAAL.

** Non-DROP payroll in 2002 and later

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at the date indicated. Additional information as of the latest actuarial valuation follows:

Valuation date:	August 31, 2005
Actuarial cost method:	Entry Age
Amortization method:	10 years, level percent, open
Asset valuation method:	4 year smoothed market
Actuarial assumptions:	
Investment rate of return:	7.50%
Projected salary increases*:	4.5% - 8.5%
*Includes wage inflation at:	4.50%
Cost-of-living adjustments:	none

Membership data as of August 31, 2005 is provided in Section D of this report.

MEMBERSHIP DATA - AUGUST 31, 2005

Active Members – Not Participating in DROP

Tabulated by Valuation Divisions

Valuation Division	No.	Employee Percent	Annual Payroll	Average Age	Average Service	Average Pay
Police						
- Old Plan	2	7.6	\$ 113,622	36.8	12.5	\$56,811
- Plan A	213	8.0	10,836,338	34.7	9.4	50,875
- Plan B	46	7.6	2,716,376	41.7	16.1	59,052
- Plan C	27	7.0	1,739,036	52.7	30.6	64,409
Fire						
- Plan A	134	8.0	6,839,232	36.6	8.0	51,039
- Plan B	111	7.6	6,784,705	46.3	19.8	61,123
Total	533		\$29,029,309	39.1	12.9	\$54,464

DROP Members

Number	Annual Benefit
55	\$1,731,136

Annual additions to DROP account shown above do not include annuity withdrawal payments

Retirants and Beneficiaries

Tabulated by Type of Benefit

Age & Service		Disability		Survivor Beneficiaries		Total	
No.	Annual Benefit	No.	Annual Benefit	No.	Annual Benefit	No.	Annual Benefit
255	\$4,004,863	36	\$489,663	43	\$410,054	334	\$4,904,580

Deferred Vested Members

No.	Estimated Annual Benefit
25	\$211,856

DEVELOPMENT OF ANNUAL PENSION COST AND NET PENSION OBLIGATION

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
		ARC			Pension	Actual reported	Change in	NPO
Fiscal year		(Annual Required	Interest on	ARC	Cost	Employer	NPO	Balance
<u>Beginning</u>	<u>Ending</u>	<u>Contribution)</u>	<u>NPO</u>	<u>Adjustment</u>	<u>(C)+(D)-(E)</u>	<u>contribution</u>	<u>(F)-(G)</u>	<u>Sum of col (H)</u>
9/1/1993	8/31/1994	\$ 580,796	-	-	\$ 580,796	\$ 388,813	\$ 191,983	\$ 191,983
9/1/1994	8/31/1995	-	\$ 13,439	\$ 19,801	(6,362)	400,022	(406,384)	(214,401)
9/1/1995	8/31/1996	695,015	(15,008)	(24,103)	704,110	419,583	284,527	70,126
9/1/1996	8/31/1997	545,702	4,909	8,680	541,931	430,884	111,047	181,173
9/1/1997	8/31/1998	530,891	12,682	24,997	518,576	491,945	26,631	207,804
9/1/1998	8/31/1999	961,584	14,546	32,467	943,663	908,234	35,429	243,233
9/1/1999	8/31/2000	91,814	17,026	43,928	64,912	941,282	(876,370)	(633,137)
9/1/2000	8/31/2001	820,610	(44,320)	(137,510)	913,800	1,111,434	(197,634)	(830,771)
9/1/2001	8/31/2002	1,877,926	(62,308)	(180,434)	1,996,052	1,541,649	454,403	(376,368)
9/1/2002	8/31/2003	2,233,836	(28,228)	(81,743)	2,287,351	1,780,604	506,747	130,379
9/1/2003	8/31/2004	3,297,577	9,778	15,300	3,292,055	1,991,672	1,300,383	1,430,762
9/1/2004	8/31/2005	3,684,264	107,307	167,903	3,623,668	2,562,850	1,060,818	2,491,580

Section C



Valuation Analysis, Comments and DROP Provisions

DERIVATION OF ACTUARIAL GAIN (LOSS) YEAR ENDED AUGUST 31, 2005

The actuarial gains or losses realized in the operation of the Pension Fund provide an experience test. Gains and losses are expected to cancel each other over a period of years (in the absence of double-digit inflation) and sizable year to year fluctuations are common. Detail on the derivation of the actuarial gain (loss) is shown below, along with a year by year comparative schedule.

(1) UAAL* last valuation	\$7,205,079
(2) Total normal cost	5,384,937
(3) Actual employer and employee contributions	4,437,032
(4) Interest accrual at 7.5%	575,927
(5) Expected UAAL before changes (1) + (2) - (3) + (4)	8,728,911
(6) Increase from benefit changes	0
(7) Increase from revised actuarial assumptions and methods	0
(8) Expected UAAL after changes	8,728,911
(9) Actual UAAL this valuation	6,247,934
(10) Gain (loss) (8) - (9)	2,480,977
(11) Gain (loss) as percent of actuarial accrued liabilities at start of year (\$144,178,758).	1.7%

Valuation Date	Actuarial Gain (Loss) As % of Beginning Accrued Liabilities
Aug. 31, 1995	5.2 %
Aug. 31, 1996	1.0 %
Aug. 31, 1997	(0.5)%
Aug. 31, 1998	5.9 %
Aug. 31, 1999	(10.9)%
Aug. 31, 2000	(1.9)%
Aug. 31, 2001	1.3 %
Aug. 31, 2002	(5.3)%
Aug. 31, 2003	(0.5)%
Aug. 31, 2004	(0.3)%
Aug. 31, 2005	1.7 %

ACTUARIAL ACCRUED LIABILITIES & VALUATION ASSETS COMPARATIVE STATEMENT - \$ AMOUNTS IN THOUSANDS)

Valuation Date	Accrued Liability (AAL)	Valuation Assets	Unfunded Actuarial Accrued Liability(UAAL)	Actuarial Valuation Assets To AAL	Ratio of UAAL to Valuation Payroll
Dec. 31, 1983#	\$ 31,113	\$ 29,718	\$ 1,395	96 %	13 %
Dec. 31, 1984	33,651	34,318	(667)	102 %	-
Dec. 31, 1985	37,083	39,895	(2,812)	108 %	-
Dec. 31, 1986	41,016	44,671	(3,655)	109 %	-
Dec. 31, 1987	46,239	50,417	(4,178)	109 %	-
Dec. 31, 1988	50,820	55,693	(4,873)	110 %	-
Dec. 31, 1989	54,676	61,144	(6,468)	112 %	-
Dec. 31, 1990#@	55,127	66,511	(11,384)	121 %	-
Aug. 31, 1991#	59,149	68,390	(9,241)	116 %	-
Aug. 31, 1992@	63,407	77,980	(14,573)	123 %	-
Aug. 31, 1993	67,910	86,583	(18,673)	127 %	-
Aug. 31, 1994	70,517	83,308	(12,791)	118 %	-
Aug. 31, 1995#	79,202	92,235	(13,033)	116 %	-
Aug. 31, 1996	81,583	94,348	(12,765)	116 %	-
Aug. 31, 1997*	91,023	101,476	(10,453)	111 %	-
Aug. 31, 1998	94,848	109,213	(14,365)	115 %	-
Aug. 31, 1999#@	104,692	113,902	(9,210)	109 %	-
Aug. 31, 2000	115,671	121,404	(5,733)	105 %	-
Aug. 31, 2001	122,661	128,070	(5,409)	104 %	-
Aug. 31, 2002#@	130,875	128,319	2,556	98 %	10 %
Aug. 31, 2003	137,508	132,578	4,930	96 %	18 %
Aug. 31, 2004	144,179	136,974	7,205	95 %	26 %
Aug. 31, 2005	151,978	145,730	6,248	96 %	22 %

After changes in benefit provisions

@ After changes in actuarial assumptions or methods

* After inclusion of "old" plan

Two tests of funding progress based on the relationship between valuation assets and actuarial accrued liabilities are shown above. These tests are, however, dependent upon the actuarial cost method.

The Ratio of Valuation Assets to Actuarial Accrued Liabilities is a traditional measure of a system's funding progress. Except in years when the benefit provisions are amended or actuarial assumptions are revised, the ratio can be expected to gradually tend toward 100%, assuming computed contribution amounts are received by the plan.

The Ratio of Unfunded Actuarial Accrued Liabilities to Valuation Payroll is another relative index of condition. In an inflationary economy, the value of dollars is decreasing. This environment results in employee pays increasing in dollar amounts, retirement benefits increasing in dollar amounts, and then, unfunded actuarial accrued liabilities increasing in dollar amounts - all at a time when the actual substance of these items may be decreasing. When looking at dollar amounts, the effects of inflation can hide the actual funding progress from year to year. Unfunded actuarial accrued liabilities dollars divided by active employee payroll dollars provides an index which attempts to eliminate the misleading effects of inflation. The smaller the ratio of unfunded liabilities to active member payroll, the stronger the system. Observation of this relative index over a period of years will give an indication of whether the system is becoming financially stronger or weaker.

COMMENTS

COST-OF-LIVING ADJUSTMENTS

Effective October 1992 the Pension Fund Ordinance provides for cost-of-living (COLA) benefits to pensioners. The source of funding for the COLA benefits is not guaranteed. The City has indicated that the payment of COLA is not guaranteed. The City has chosen not to pre-fund this benefit. Therefore, COLA benefits and the corresponding pool of assets were not included in this valuation of the Pension Fund or in the determination of the employer contribution.

EXPERIENCE DURING YEAR

The aggregate experience of the System was favorable during the year ended August 31, 2005. During this period, the Pension Fund earned more than the long-term assumed rate of investment return (7.5% net of expenses). Market smoothing techniques used for your actuarial valuations recognize only part of the current and prior investment gains and losses. Investment experience (including gains and losses from prior years) was more favorable than expected, resulting in an investment gain. In addition, pay increases were lower than expected which contributed to the favorable experience.

EMPLOYER CONTRIBUTIONS

The employer contributions to the System during the 2004-2005 plan year were lower than recommended. In general, reduced contributions during a given year automatically increase the need for future employer contributions.

DROP EXPERIENCE

During the year ended August 31, 2005, there were 6 new DROP participants and 21 individuals ended their participation in the DROP plan (and terminated City employment). The average duration of DROP participation appears to be less than the maximum. Average DROP participation has no material impact on the Pension Fund but is noted as part of our review of Fund experience.

COMMENTS (CONTINUED)

PLAN CHANGES

There were no benefit or other plan changes reported to the actuary in connection with the August 31, 2005 valuation of the Pension Fund.

OTHER

The City has directed the actuary to use a ten year amortization (open) of past service liabilities in developing the employer contribution requirements for the current and future actuarial valuations of the System. For consistency with prior reports, employer contribution rates were developed using both 5 and 25 year amortization periods. These rates are shown below:

Employer Contribution Rates Expressed as % 's of Payroll Under Alternate Amortization Periods	
For Fiscal Year Beginning September 1,	2006
5 YEAR AMORTIZATION OF UAAL	15.14 %
25 YEAR AMORTIZATION OF UAAL	11.87 %

Note: Contribution rates are expressed as percentages of active member payroll. This payroll does not include pay for active members participating in the DROP.

Section D



Summary of Benefit Provisions and Valuation Data Submitted by the Pension Fund

SUMMARY OF BENEFIT PROVISIONS EVALUATED AND/OR CONSIDERED (AUGUST 31, 2005)

Normal Retirement

Eligibility.

Plan A: Attained age 50.

Others: Attained age 53.

Amount.

Plan A members: Member receives a pension equal to 2.56% of regular pay times years of service up to 25 years. (Maximum pension is 64% of regular pay).

- Others:
- 1) A member with 21 or more years of service shall receive a pension equal to 58% (Plan B) or 54% (Plan C) of regular pay, plus 2% of regular pay for each year of service rendered after becoming eligible for retirement, to a maximum increase of 10% of regular pay.
 - 2) A member with less than 21 years service shall receive a pension equal to 58% (Plan B) or 54% (Plan C) of regular pay times the ratio of a) his number of years of service, to b) 21 years.

Minimum annual benefit is \$3,600 (not applicable to children recipients).

Regular Pay

The average base pay of a member during the 26 consecutive pay periods preceding retirement or death.

Early Retirement

Eligibility. Attained age 50 and 21 years of service.

Plan A members: Member receives a pension equal to 2.56% of regular pay times the ratio of years of service up to 25 years.

- Others:
- 1) A member with 21 or more years of service shall receive a pension equal to 52% (Plan B) or 48% (Plan C) of regular pay, plus 2% of regular pay for each year of service rendered after becoming eligible for early retirement, to a maximum of 6%.
 - 2) A member with less than 21 years of service shall receive a pension equal to 58% (Plan B) or 54% (Plan C) of regular pay times that ratio of (a) his number of years of service, to (b) 21 years.

SUMMARY OF BENEFIT PROVISIONS EVALUATED AND/OR CONSIDERED

Vested (Deferred) Retirement

Eligibility. Termination of employment after 10 or more years of service. Benefit commences at age 53 (age 50 for Plan A members), actuarially reduced benefit available at age 50.

Amount.

Plan A members: A pension equal to 2.56% of regular pay times years of service up to 25 years.

Others: A pension equal to 54% or 58% of regular pay at termination times the ratio of the number of years of service divided by 21 years (ratio shall not exceed one).

A member terminating employment prior to age 50 and after 10 or more years of service has the option to withdraw his accumulated contributions and receive a reduced pension at age 53 (reduced to reflect withdrawal of contributions).

Duty Death or Duty Disability Resulting In Death

Eligibility. Active member dies in the line of duty or as a result of injuries received while in the line of duty.

Amount. (1) If a member dies prior to becoming eligible for a normal retirement, the member's surviving spouse receives a pension equal to 54% or 58% of his regular pay. Upon the spouse's remarriage or death, the pension is payable to any dependent children until 19 years of age.

(2) If a member dies after becoming eligible for a normal retirement, his designated beneficiary receives a pension equal to Option A (joint and 100% survivor actuarial equivalent benefit) which would have been payable had the deceased member retired and elected Option A.

The above amounts are subject to deduction of the amount received from worker's compensation.

Non-Duty Death

Eligibility. Attained age 50 and 21 years of service.

Amount. A designated beneficiary shall receive a pension equal to the pension which would have been payable had the member retired the day prior to his death and elected Option A, except that the early retirement actuarial reduction shall not be applied.

DROP PROGRAM SUMMARY OF PROVISIONS

DROP: Deferred Retirement Option Plan

Eligibility for the DROP

- Members of Plans B and C may join the DROP within 1 year of becoming eligible for Normal retirement benefits as described in the Summary of benefit provisions in this report
- Grandfather provision allows members of Plans B and C who were eligible to retire on the date of DROP implementation, a one time opportunity to join the DROP.
- Members of Plan A may join the DROP at any time after meeting the eligibility conditions for Normal retirement as described in the Summary of benefit provisions in this report

DROP benefits

- 100% of the member's accrued benefit at the time of DROP will be contributed to the member's DROP account.
- If the member elects annuity withdrawal (available to members of Plans B and C) the lump sum payment and corresponding reduced annuity will be credited to the member's DROP account.

DROP funding Period

- Both the City and the employee will contribute (in accordance with the provisions of each Plan) to the System until the employee enters the DROP.

DROP Period

- Maximum of 5 years.

The rates of retirement /DROP are shown in Section E of this report.

SUMMARY OF BENEFIT PROVISIONS EVALUATED AND/OR CONSIDERED

Duty Disability

Eligibility. An active member becomes totally and permanently disabled from performing their duty resulting from a cause occurring while in the line of duty.

Amount. Plan A: 58% of regular pay.

Plans B & C: A pension equal to 54% or 58% of regular pay respectively, plus 2% of regular pay for each year of service rendered after becoming eligible for retirement, to a maximum increase of 10% of regular pay. Such pension shall continue after the member's death to the member's surviving spouse, minor children or designated Option A beneficiary (a reduced amount in this case).

The above amounts are subject to deduction of the amount received from worker's compensation.

Non-Duty Disability

Eligibility. An active member becomes totally and permanently disabled while not in the line of duty.

Amount. A pension equal to the following percent of regular pay:

- (i) 21% or 23%; if 5 or more, but less than 10 years of service
- (ii) 36% or 39%; if 10 or more, but less than 15 years of service
- (iii) 49% or 53%; if 15 or more years of service.

(Plans A & B are eligible for higher amounts. Plan C is eligible for lower amount.)

If death results from such disability, the pension shall be paid to the member's surviving spouse until the spouse's death or remarriage, or a reduced pension will be paid to a designated beneficiary.

Death After Retirement

Plan A members receive a death benefit after retirement equal to the member's accumulated contributions multiplied by the ratio of the number of expected payments **not** received to the number of expected payments (the ratio cannot be less than zero)*.

Employee Contributions

Plan A members: 8% of pay

Plan B members: 7.6% of pay

Plan C members: 7.0% of pay

Upon attaining 21 years of service member contributions are discontinued for Plan B and Plan C members. Plan C members are eligible for the lower benefit formula.

RETIRANTS AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS

COMPARATIVE STATEMENT

Year Ended	Added to Rolls			Removed from Rolls		Rolls End of Year		% Incr. Annual Benefits	Average Annual Benefit	Present Value of Benefits	Expected Removals
	No.**	Annual Benefits	Post-Ret. Increases	No.	Annual Benefits	No.	Annual Benefits				
Dec. 31, 1980	3	\$ 19,286	31,587	2	\$ 7,805	72	\$ 336,306	3.5%	\$ 4,671	\$ 3,811,286	*
Dec. 31, 1981	7	42,675		3	7,427	76	403,141	19.9%	5,304	4,523,474	2.0
Dec. 31, 1982	8	84,321		2	9,043	82	478,419	18.7%	5,834	5,388,863	2.0
Dec. 31, 1983	3	21,512		4	17,233	81	482,698	0.9%	5,959	5,441,308	2.2
Dec. 31, 1984	6	75,732		1	3,600	86	554,830	14.9%	6,452	6,207,571	2.1
Dec. 31, 1985	12	102,224		6	26,240	92	630,814	13.7%	6,857	7,149,782	2.1
Dec. 31, 1986	8	89,719		2	4,810	98	715,723	13.5%	7,303	8,178,384	2.2
Dec. 31, 1987	12	123,986		4	21,530	106	818,178	14.3%	7,719	9,356,423	2.4
Dec. 31, 1988	6	109,203		2	11,578	110	915,803	11.9%	8,325	10,559,713	2.5
Dec. 31, 1989	7	114,257		3	10,800	114	1,019,260	11.3%	8,941	11,561,345	2.6
Dec. 31, 1990	11	116,420	42,470	3	19,220	122	1,116,460	9.5%	9,151	11,481,585	2.6
Aug. 31, 1991	22 #	308,940		2	7,200	142	1,460,670	30.8%	10,286	15,153,964	2.9
Aug. 31, 1992	16	221,944		1	3,816	157	1,678,798	14.9%	10,693	17,476,101	3.0
Aug. 31, 1993	17	219,974		1	10,698	173	1,888,074	12.5%	10,914	19,587,219	3.4
Aug. 31, 1994	16	218,777		4	17,829	185	2,089,022	10.6%	11,292	21,626,088	3.9
Aug. 31, 1995	16	211,219		4	37,158	197	2,263,083	8.3%	11,488	23,460,016	4.0
Aug. 31, 1996	8	149,099		2	16,566	203	2,395,616	5.9%	11,801	24,485,902	4.4
Aug. 31, 1997	73 ##	590,041		4	56,890	272	3,042,547	27.0%	11,186	30,106,928	4.8
Aug. 31, 1998	10	155,262		11	71,670	271	3,126,139	2.7%	11,536	30,772,934	9.5
Aug. 31, 1999	23	414,130		1	22,889	293	3,517,380	12.5%	12,005	34,485,300	9.1
Aug. 31, 2000	17	335,244		7	62,014	303	3,790,610	7.8%	12,510	36,997,867	9.3
Aug. 31, 2001	14	225,737		16	105,022	301	3,911,325	3.2%	12,994	38,221,508	9.3
Aug. 31, 2002	18	278,160		14	115,340	305	4,074,145	4.2%	13,358	39,561,174	9.1
Aug. 31, 2003	15	219,569		11	119,499	309	4,174,215	2.5%	13,509	40,114,979	9.1
Aug. 31, 2004	12	175,551		5	74,835	316	4,274,931	2.4%	13,528	40,674,227	9.4
Aug. 31, 2005	30	702,721		12	73,072	334	4,904,580	14.7%	14,684	47,094,716	9.5

* Not available

** Includes retirements from the DROP

Includes one member not previously reported

Includes the addition of "old plan" members

DROP MEMBERS - BY ATTAINED AGES
AUGUST 31, 2005

Attained Ages	No.	DROP Annual Benefits
50	1	\$ 35,777
51	4	141,368
52	3	99,457
53	8	276,220
54	6	180,684
55	5	127,542
56	4	114,727
57	2	68,406
58	5	141,876
59	4	126,086
60	5	152,266
61	4	132,952
62	1	33,756
64	1	30,610
65	1	26,763
66	1	42,646
Total	55	\$1,731,136

RETIRANTS AND BENEFICIARIES - BY ATTAINED AGES
AUGUST 31, 2005

Attained Ages	Age and Service Retirants		Disability Retirants		Survivor Beneficiaries	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
33			1	\$ 17,513		
34			1	31,335		
36			1	23,448		
38			1	10,777		
40			1	9,812		
44			1	18,177		
46			1	28,524		
48			2	42,793		
50	2	\$ 43,732	2	17,131		
51	6	108,330			1	\$14,665
52	5	85,670	3	38,979		
53	4	111,914	1	14,205	1	8,486
54	8	126,096			1	15,127
55	12	205,616	1	14,065	1	32,575
56	13	229,281			1	20,833
57	10	201,381	1	13,280	2	56,817
58	14	171,687	1	13,063		
59	5	83,889				
60	14	218,183	1	4,014		
61	7	111,259	2	24,383	1	12,029
62	14	247,102	2	22,439	2	12,095
63	12	211,631				
64	9	130,507	2	25,380		

(Concluded on next page)

RETIRANTS AND BENEFICIARIES - BY ATTAINED AGES
AUGUST 31, 2005
(CONCLUDED)

Attained Ages	Age and Service Retirants		Disability Retirants		Survivor Beneficiaries	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
65	15	\$ 253,802	2	\$ 29,871		
66	13	191,145				
67	9	155,894			4	\$ 54,431
68	11	134,825	2	20,325	1	13,265
69	16	253,511			2	25,678
70	4	59,434	3	23,108		
71	6	93,098				
72	3	46,374				
73	4	60,235				
74	4	55,532	3	39,058		
75	6	78,283			2	17,564
76	3	57,981				
77	3	45,595	1	7,983		
78	7	74,422			1	4,868
79	1	16,078			2	17,880
80	6	56,912			3	12,921
81	2	35,250				
82					1	4,032
83					1	3,870
84	2	22,811			1	11,830
85 and over	5	27,403			15	71,088
Total	255	\$4,004,863	36	\$489,663	43	\$410,054

VESTED TERMINATED MEMBERS - BY ATTAINED AGES
AUGUST 31, 2005

Attained Ages	No.	Estimated Annual Benefits
36	2	\$ 18,694
38	1	3,195
39	2	4,631
41	2	15,525
42	4	18,253
43	1	2,073
44	1	4,775
45	3	29,129
46	2	33,805
47	2	52,703
48	1	11,236
51	1	7,796
52	2	7,510
53	1	2,531
Total	25	\$211,856

ACTIVE MEMBERS INCLUDED IN VALUATION

Valuation Date	Active Members	Vested Term Members	Valuation Payroll**	Average			% Increase
				Age	Service	Pay	
Dec. 31, 1986	474	13	11,737,859	38.7	14.0	24,763	3.3 %
Dec. 31, 1987	484	16	12,948,660	39.0	14.3	26,757	8.1 %
Dec. 31, 1988	483	19	12,937,333	39.5	14.7	26,785	0.1 %
Dec. 31, 1989	496	24	13,742,308	39.5	14.7	27,706	3.4 %
Dec. 31, 1990	510	30	15,014,896	39.6	14.7	29,441	6.3 %
Aug. 31, 1991	490	36	15,157,150	39.3	14.4	30,933	5.1 %
Aug. 31, 1992	471	37	15,364,976	40.0	15.0	32,622	5.5 %
Aug. 31, 1993	516	38	16,721,658	39.3	14.5	32,406	(0.7)%
Aug. 31, 1994	521	42	17,698,377	39.0	13.4	33,970	4.8 %
Aug. 31, 1995	526	41	18,561,302	39.1	14.5	35,288	3.9 %
Aug. 31, 1996	545	42	19,224,719	39.1	14.3	35,275	0.0 %
Aug. 31, 1997	549	43	20,908,549	38.9	13.3	38,085	8.0 %
Aug. 31, 1998	561	47	21,860,493	38.8	13.2	38,967	2.3 %
Aug. 31, 1999	545	48	23,611,284	39.1	13.5	43,323	11.2 %
Aug. 31, 2000	543	45	25,808,088	39.5	13.8	47,529	9.7 %
Aug. 31, 2001	584	41	28,215,685	39.3	13.3	48,315	1.7 %
Aug. 31, 2002	536	36	26,606,881	38.4	12.3	49,640	2.7 %
Aug. 31, 2003	535	31	27,415,330	38.7	12.5	51,244	3.2 %
Aug. 31, 2004	533	25	28,124,862	38.8	12.5	52,767	3.0 %
Aug. 31, 2005	533	25	29,029,309	39.1	12.9	54,464	3.2 %

ADDITIONS TO AND REMOVALS FROM ACTIVE MEMBERSHIP ACTUAL AND EXPECTED NUMBERS

Year Ended	Number Added During Year		Normal Retirement*		Disability Retirement		Died In Service		Terminations		Active Members End of Year
	A	E	A	E	A	E	A	E	A	E	
Aug. 31, 1991	13	33	21	10.5	0	1.2	0	1.2	12	17.7	490
Aug. 31, 1992	0	19	10	8.3	2	1.2	1	1.2	6	15.7	471
Aug. 31, 1993	63	18	12	8.2	2	1.2	0	1.2	4	13.0	516
Aug. 31, 1994	38	33	12	8.6	2	1.2	0	1.3	19	15.8	521
Aug. 31, 1995	26	21	12	7.9	0	1.3	0	1.3	9	17.8	526
Aug. 31, 1996	34	15	8	9.2	0	1.2	0	1.4	7	15.8	545
Aug. 31, 1997	31	27	20	8.3	0	1.4	0	1.4	7	16.6	549
Aug. 31, 1998	42	30	8	8.1	0	1.3	0	1.3	22	18.6	561
Aug. 31, 1999	23	39	19	9.4	1	1.3	0	1.3	19	16.8	545
Aug. 31, 2000	29	31	8	12.5	0	0.5	0	0.6	23	13.9	543
Aug. 31, 2001	61	20	6	14.3	3	0.6	0	0.6	11	14.0	584
Aug. 31, 2002	21	69	54	15.7	0	0.6	0	0.6	15	16.5	536
Aug. 31, 2003	21	22	13	11.1	0	0.5	0	0.5	9	15.3	535
Aug. 31, 2004	28	30	19	12.4	0	0.5	0	0.4	11	14.3	533
Aug. 31, 2005	24	24	9	12.7	2	0.5	0	0.4	13	14.6	533
5 Year Total	155	165	101	66.2	5	2.7	0	2.5	59	74.7	

A Represents actual number. *E* Represents expected number based on assumptions outlined in Section C.

* Includes new retirements and DROP members (from active status) beginning with August 31, 2002 valuation.

** Reflects Non-DROP payroll in 2002 and later.

ACTIVE POLICEMEN NOT PARTICIPATING IN DROP - AUGUST 31, 2005
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
20-24	11							11	\$ 444,845
25-29	35	14						49	2,080,368
30-34	21	39	4					64	3,040,503
35-39	5	16	30	13				64	3,530,747
40-44	2	1	4	18	1			26	1,530,078
45-49		1	2	12	17	5	1	38	2,328,632
50-54					2	7	17	26	1,767,791
55-59				1			8	9	614,874
62							1	1	67,534
Totals	74	71	40	44	20	12	27	288	\$15,405,372

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 37.5 years
Service: 12.5 years
Annual Pay: \$53,491

ACTIVE FIREMEN NOT PARTICIPATING IN DROP - AUGUST 31, 2005
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
20-24	2							2	\$ 82,304
25-29	19							19	854,355
30-34	23	16	4					43	2,122,017
35-39	5	16	15	4				40	2,178,053
40-44	10	6	15	19	1			51	2,838,185
45-49	3	3	9	10	11	10		46	2,732,290
50-54		1	2	5	11	13	7	39	2,442,946
55-59				1			4	5	373,787
Totals	62	42	45	39	23	23	11	245	\$13,623,937

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 41.0 years
Service: 13.3 years
Annual Pay: \$55,608

ALL ACTIVE MEMBERS NOT PARTICIPATING IN DROP - AUGUST 31, 2005
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
20-24	13							13	\$ 527,149
25-29	54	14						68	2,934,723
30-34	44	55	8					107	5,162,520
35-39	10	32	45	17				104	5,708,800
40-44	12	7	19	37	2			77	4,368,263
45-49	3	4	11	22	28	15	1	84	5,060,922
50-54		1	2	5	13	20	24	65	4,210,737
55-59				2			12	14	988,661
60							1	1	67,534
Totals	136	113	85	83	43	35	38	533	\$29,029,309

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 39.1 years
Service: 12.9 years
Annual Pay: \$54,464

FINANCIAL INFORMATION FURNISHED FOR THE ACTUARIAL VALUATION

Reported Market value of assets* for the Year Ended August 31, 2005

Market Value of Assets, beginning of year	\$148,474,094
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REVENUES

Contributions from		
Members	\$1,874,182	
Employer	2,345,895	
EMS	216,955	
Total Contributions		4,437,032
Investment Income		
Net Interest	626,403	
Net Dividends	3,178,831	
Amortization of premiums and discounts	(14,746)	
Net Gain on Investments	15,444,046	
Other	10,178	
Total Investment Income		<u>\$ 19,244,712</u>
Total Revenues		\$ 23,681,744

EXPENDITURES

Retirement benefits paid		
Base Pension		\$ 4,829,992
DROP Payments		2,116,314
Refunds of member contributions		
Trustee-to-trustee transfer	\$ 448,488	
Direct refund to employee	139,392	
Total Refunds		\$ 587,880
Administrative expenses		156,599
Investment expense		117,582
Change in Payables		<u>3,643</u>
Total Expenditures		\$ 7,812,010
Market Value of Assets, end of year		\$ 164,343,828

* Includes COLA pool assets of \$11,019,063

Section E



Financial Principles,
Actuarial Valuation Process,
Actuarial Cost Methods,
Actuarial Assumptions, and
Definitions of Technical Terms

BASIC FINANCIAL PRINCIPLES AND OPERATION OF THE PENSION FUND

Benefit Promises Made Which Must Be Paid For. A retirement program is an orderly means of handing out, keeping track of, and financing pension promises to a group of employees. As each member of the retirement program acquires a unit of service credit the member is, in effect, handed an "IOU" which reads: "The Pension Fund promises to pay you one unit of retirement benefits, payments in cash commencing when you retire."

The principal related financial question is: When shall the money required to cover the "IOU" be contributed? This year, when the benefit of the member's service is received? Or, some future year when the "IOU" becomes a cash demand?

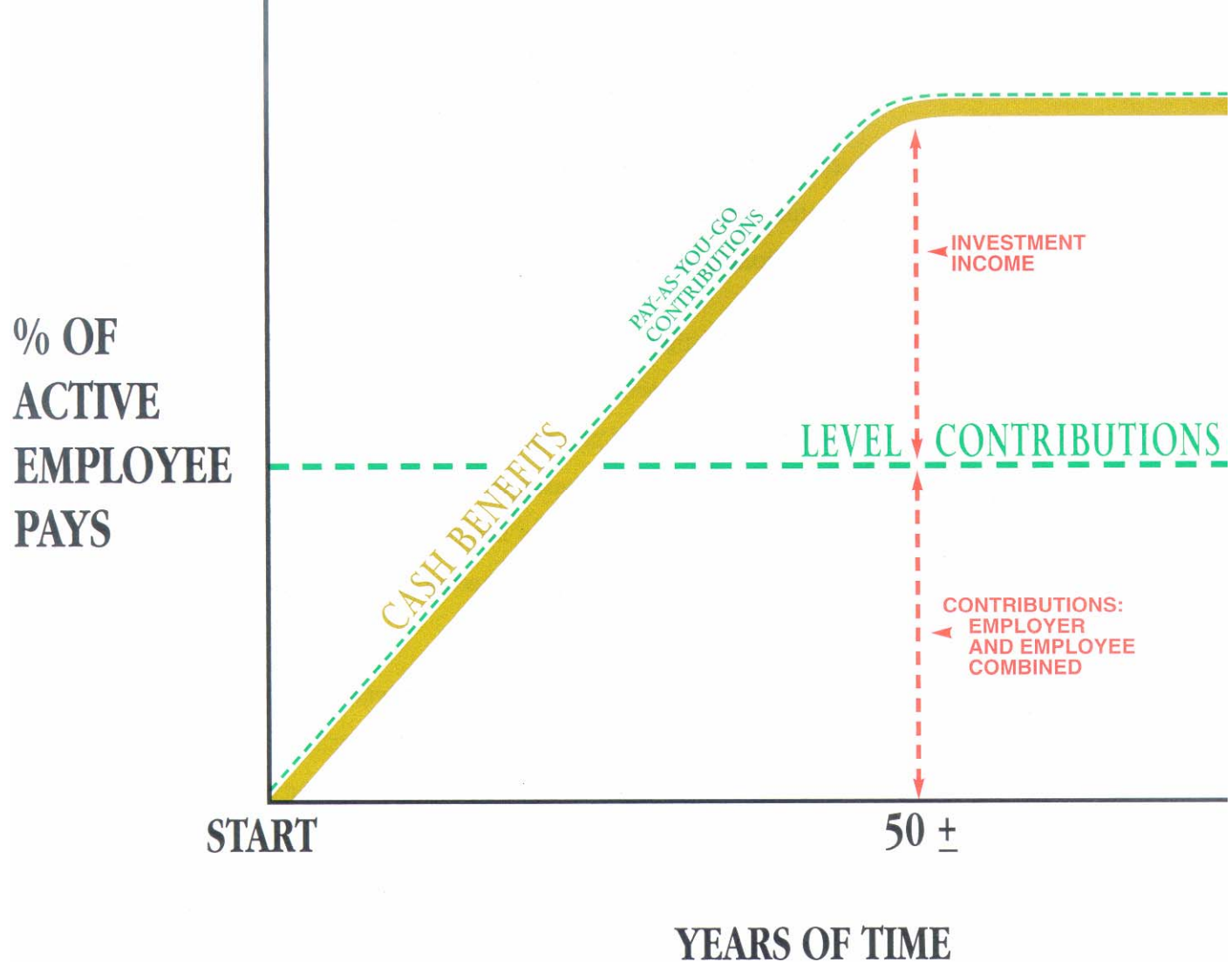
This Pension Fund addresses this question by having as its ***financial objective the establishment and receipt of contributions, expressed as percents of active member payroll, which will remain approximately level*** from year to year and will not have to be increased for future generations of taxpayers.

Translated into actuarial terminology, a level percent-of-payroll contribution objective means that the contribution rate must be at least:

Normal Cost (the present value of future benefits assigned to members' service being rendered in the current year)

. . . plus . . .

Interest on the Unfunded Actuarial Accrued Liability (the difference between the actuarial accrued liability and current system assets).



CASH BENEFITS LINE. This relentlessly increasing line is the fundamental reality of retirement plan financing. It happens each time a new benefit is added for future retirements (and happens regardless of the design for contributing for benefits).

LEVEL CONTRIBUTION LINE. Determining the level contribution line requires detailed assumptions concerning a variety of experiences in future decades, including:

Economic Risk Areas

- Rates of investment return
- Rates of pay increase
- Changes in active member group size

Non-Economic Risk Areas

- Ages at actual retirement
- Rates of mortality
- Rates of withdrawal of active members (turnover)
- Rates of disability

THE ACTUARIAL VALUATION PROCESS

The financing diagram on the previous page shows the relationship between the two fundamentally different philosophies of paying for retirement benefits: the method where contributions match cash benefit payments (or barely exceed cash benefit payments, as in the Federal Social Security program) which is an ***increasing contribution method***; and the ***level contribution method*** which equalizes contributions between the generations.

The actuarial valuation is the mathematical process by which the level contribution rate is determined, and the flow of activity constituting the valuation may be summarized as follows:

A. ***Covered Person Data***, furnished by plan administrator.

Retired lives now receiving benefits

Former employees with vested benefits not yet payable

Active employees

B. + ***Asset data*** (cash & investments), furnished by plan administrator

C. + ***Assumptions concerning future financial experience in various risk areas***, which assumptions are established by the City Council after consulting with the actuary

D. + ***The funding method*** for employer contributions (the long-term, planned pattern for employer contributions)

E. + ***Mathematically combining the assumptions, the funding method, and the data***

F. = **Determination of:**

Plan financial position

and/or New Employer Contribution Rate

ACTUARIAL COST METHODS USED FOR THE VALUATION

Normal cost and the allocation of actuarial present values between service rendered before and after the valuation date were determined using an individual entry-age actuarial cost method having the following characteristics:

- (i) the annual normal costs for each individual active member, payable from the member's actual date of employment to projected date of DROP or retirement, are sufficient to accumulate the actuarial present value of the member's benefit at the time of retirement;
- (ii) each annual normal cost is a constant percentage of the member's year by year projected covered pay.

Amortization of Unfunded Actuarial Accrued Liabilities. Unfunded actuarial accrued liabilities were amortized as a level percent of active member payroll over a period of 10 years. Active member payroll was assumed to increase 4.5% a year for the purpose of determining the level percent contributions (please refer to the comments in Section C for important additional information).

ACTUARIAL ASSUMPTIONS IN THE VALUATION PROCESS

The actuary calculates contribution requirements and actuarial present values for a retirement plan by applying actuarial assumptions to the benefit provisions and people information of the plan, using the actuarial cost methods described on page E-4.

The principal areas of risk which require assumptions about future experience are:

- (i) long-term rates of investment return to be generated by the assets of the plan
- (ii) patterns of pay increases to members
- (iii) rates of mortality among members, retirants and beneficiaries
- (iv) rates of withdrawal of active members
- (v) rates of disability among active members
- (vi) the age patterns of actual retirements.

In making a valuation, the actuary calculates the monetary effect of each assumption for as long as a present covered person survives - - - a period of time which can be as long as a century.

The employer contribution rate has been computed to remain level from year to year so long as benefits and the basic experience and make-up of members do not change. Examples of favorable experience which would tend to reduce the employer contribution rate are:

- (1) Investment returns in excess of 7.5 percent per year.
- (2) Member non-vested terminations at a higher rate than outlined on page E-9.
- (3) Mortality among retirants and beneficiaries at a higher rate than indicated by the 1971 Group Annuity Mortality Table projected to the year 2000, setback 0 years for men and 5 years for women.
- (4) Increases in the number of active members.

ACTUARIAL ASSUMPTIONS IN THE VALUATION PROCESS

Examples of unfavorable experience which would tend to increase the employer contribution rate are:

- (1) Pay increases in excess of the rates outlined on page E-7.
- (2) An increase in the rates of retirement (DROP) over the rates outlined on page E-10.
- (3) A pattern of hiring employees at older ages than in the past.

Actual experience of the plan will not coincide exactly with assumed experience, regardless of the choice of the assumptions, the skill of the actuary or the precision of the calculations. Each valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experience. The result is a continual series of adjustments (usually small) to the computed contribution rate.

From time to time one or more of the assumptions is modified to reflect experience trends (but not random or temporary year to year fluctuations).

ACTUARIAL ASSUMPTIONS USED FOR THE VALUATION

Investment Return (net of administrative expenses).

7.5% a year, compounded annually. This rate consists of a real rate of return of 3.0% a year plus a long-term rate of wage inflation of 4.5% a year.

This assumption is used to equate the value of payments due at different points in time. Approximate rates of investment return, for the purpose of comparisons with assumed rates, are shown below. Actual increases in average active member pay are also shown for comparative purposes.

	Year Ended August 31,				
	2005	2004	2003	2002	2001
Rate of Investment Return	8.5 %	5.9 %	5.8 %	4.1 %	8.0 %
Increase in Average Pay	3.2 %	3.0 %	3.2 %	2.7 %	1.7 %

The nominal rate of return was computed using the approximate formula $i = I$ divided by $1/2 (A + B - I)$, where I is recognized investment income net of expenses and COLA Pool appropriation, A is the beginning of year asset value, and B is the end of year asset value.

These rates of return should not be used for measurement of an investment advisor's performance or for comparisons with other systems -- *to do so will mislead*.

Pay Projections. These assumptions are used to project current pays to those upon which benefits will be based. The assumptions were first used for the August 31, 2002 valuation.

Sample Ages	Annual Rate of Pay Increase for Sample		
	Base (Economic)	Merit and Longevity	Total
20	4.5%	4.0%	8.5%
25	4.5%	3.3%	7.8%
30	4.5%	2.8%	7.3%
35	4.5%	2.5%	7.0%
40	4.5%	2.2%	6.7%
45	4.5%	1.8%	6.3%
50	4.5%	1.2%	5.7%
55	4.5%	0.7%	5.2%

Pay Projections continued

If the number of active members remains constant, the total active member payroll is eventually expected to increase by 4.5% annually, the base portion of the individual pay increase assumptions. This increasing payroll was recognized in amortizing unfunded actuarial accrued liabilities. Please refer to page C-4 for important additional information.

Changes in average pay and total payroll actually experienced is shown below. After 2002, payroll is non-DROP payroll.

Increase in	Year Ended August 31,				
	2005	2004	2003	2002	2001
Average pay	3.2 %	3.0 %	3.2 %	2.7 %	1.7 %
Total payroll	3.2 %	2.6 %	3.0 %	(5.7)%	9.3 %

Mortality Table. The 1971 Group Annuity Mortality Table projected to the year 2000, set back 0 years for men and 6 years for women. This table was first used for the August 31, 1999 valuation. Sample values follow:

Sample Ages	Actuarial Present Value of \$1 Monthly for Life		Future Life Expectancy (Years)	
	Men	Women	Men	Women
55	\$127.55	\$137.82	23.98	29.17
60	116.92	129.43	19.90	24.82
65	104.30	119.21	16.09	20.70
70	90.39	106.97	12.69	16.82
75	76.40	93.20	9.82	13.32
80	62.33	79.24	7.39	10.36

This assumption is used to measure the probabilities of members dying before retirement and the probabilities of each benefit payment being made after retirement. Effective with the 8/31/97 valuation 50% of the assumed deaths before retirement were assumed to be duty related and 50% were assumed to be non-duty related.

Rates of separation from active membership. The rates do not apply to members eligible to retire and do not include separation on account of death or disability. This assumption measures the probabilities of members remaining in employment.

Sample Ages	Years of Service	Percent Separating within Next Year	
		Police	Fire
ALL	0	15.00%	8.00%
	1	10.00%	6.00%
	2	8.00%	4.50%
	3	7.00%	3.00%
	4	6.00%	2.00%
25	5 & Over	5.00%	2.00%
30		5.00%	1.40%
35		3.80%	1.00%
40		2.40%	0.80%
45		1.30%	0.60%
50		0.50%	0.10%
55		0.50%	0.10%

The rates were first used for the August 31, 1999 valuation.

Rates of Disability. These assumptions represent the probabilities of active members becoming disabled.

Sample Ages	Percent Becoming Disabled within Next Year	
	Men	Women
20	0.04%	0.04%
25	0.05%	0.05%
30	0.05%	0.05%
35	0.08%	0.08%
40	0.12%	0.12%
45	0.19%	0.19%
50	0.34%	0.34%
55	0.50%	0.50%
60	0.67%	0.67%

The mortality table was set forward ten years for projecting disability costs.

These rates were first used for the August 31, 1999 valuation.

Effective with the August 31, 1997 valuation, 50% of the assumed liabilities were assumed to be duty related and 50% were assumed to be non-duty related.

Rates of Retirement and DROP Entry. These rates are used to measure the probabilities of an eligible member retiring and/or “dropping” within 1 year of the indicated age.

Ages	Rates of Retirement and/or DROP Entry				
	Old Plan	Plan A		Plans B & C	
		Police	Fire	Police	Fire
50	35%	45%	15%	35%	5%
51	15	25	15	15	5
52	15	25	15	15	5
53	15	20	10	30	20
54	15	20	20	30	20
55	40	30	20	45	15
56	15	10	20	20	15
57	15	10	20	15	25
58	15	10	20	15	35
59	15	10	20	15	15
60	100	100	15	100	15
61	100	100	15	100	35
62	100	100	15	100	35
63	100	100	15	100	10
64	100	100	15	100	10
65	100	100	100	100	100

A member was assumed to be eligible for retirement upon meeting the conditions shown in Section D.

These rates were first used for the August 31, 2002 valuation.

Active Member Group Size. The number of active members was assumed to remain constant. This assumption is unchanged from previous valuations. During the first few years after the implementation of the DROP, this assumption will be violated, resulting in fluctuations in the contribution for UAAL%.

SUMMARY OF ASSUMPTIONS USED
AUGUST 31, 2005
MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

Marriage Assumption:	100% of males and 100% of females are assumed to be married for purposes of death-in-service benefits.
Decrement Timing:	Retirements are assumed to occur at the beginning of the year. Decrements of all other types are assumed to occur at the end of the year.
Eligibility Testing:	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
Benefit Service:	Exact fractional service is used to determine the amount of benefit payable.
Decrement Operation:	Disability decrements do not operate during the first 5 years of service. They also do not operate during retirement eligibility.
Normal Form of Benefit:	The assumed normal form of benefit is the straight life form.
Incidence of Contributions:	Contributions are assumed to be received continuously throughout the applicable fiscal year based upon the contribution rate shown in this report, and the actual payroll at the time contributions are made. New entrant normal cost contributions are applied to the funding of new entrant benefits.
DROP Funding Period:	Both the City and employee contribute (in accordance with the provisions of each plan) to the System until the employee enters the DROP.
Pay Increase Timing:	Middle of year

DEFINITIONS OF TECHNICAL TERMS

Accrued Service. Service credited under the system which was rendered before the date of the actuarial valuation.

Actuarial Accrued Liability. The difference between the actuarial present value of system benefits and the actuarial present value of future normal costs. Also referred to as "past service liability."

Actuarial Assumptions. Estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment (income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

Actuarial Cost Method. A mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future benefits" between future normal costs and actuarial accrued liability. Sometimes referred to as the "actuarial funding method."

Actuarial Equivalent. One series of payments is said to be actuarially equivalent to another series of payments if the two series have the same actuarial present value.

Actuarial Gain (Loss). The difference between actual unfunded actuarial accrued liabilities and anticipated unfunded actuarial accrued liabilities -- during the period between two valuation dates. It is a measurement of the difference between actual and expected experience.

Actuarial Present Value. The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest, and by probabilities of payments.

DEFINITIONS OF TECHNICAL TERMS

Amortization. Paying off an interest-discounted amount with periodic payments of interest and (generally) principal -- as opposed to paying off with a lump sum payment.

Credited Projected Benefit. The portion of a member's projected benefit attributable to service before the valuation date - allocated based on the ratio of accrued service to projected total service and based on anticipated future compensation.

Normal Cost. The portion of the actuarial present value of future benefits that is assigned to the current year by the actuarial cost method. Sometimes referred to as "current service cost."

Unfunded Actuarial Accrued Liabilities. The difference between actuarial accrued liabilities and valuation assets. Sometimes referred to as "unfunded past service liability" or "unfunded supplemental present value."

Most retirement systems have unfunded actuarial accrued liabilities. They arise each time new benefits are added and each time an actuarial loss occurs.

The existence of unfunded actuarial accrued liabilities is not in itself bad, any more than a mortgage on a house is bad. Unfunded actuarial accrued liabilities do not represent a debt that is payable today. What is important is the ability to amortize the unfunded actuarial accrued liabilities and the trend in their amount (after due allowance for devaluation of the dollar).